Department of Toxic Substances Control

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Winston H. Hickox
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Admin Records

M60050.000699
MCAS EL TORO
SSIC #5090.3

November 21, 2000

Mr. Dean Gould
BRAC Environmental Coordinator
Marine Corps Air Station El Toro
Base Realignment and Closure
P.O. Box 51718
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ADDITIONAL COMMENTS ON THE PERMANGANATE DEMONSTRATION PROJECT REVISED SUMMARY TABLE AND BENCH-SCALE TEST RESULTS, INSTALLATION RESTORATION PROGRAM (IRP) SITE 24, MARINE CORPS AIR STATION (MCAS) EL TORO

Dear Mr. Gould:

The Department of Toxic Substances Control (DTSC) reviewed the revised Summary Table 2-1 for the implementation strategy and the bench-scale test results transmitted on April 27, 2000 and forwarded comments on July 6, 2000. In addition to the comments provided previously, DTSC has one additional comment. Please provide additional discussion regarding the potential impact of injected concentrations of Cr(VI) on the cancer risk associated with groundwater beneath the site.

According to the United States Environmental Protection Agency Integrated Risk Information System (updated September 3, 1998), Cr(VI) is a known human carcinogen based on inhalation exposure. Bench-scale testing was performed on samples consisting of soil and groundwater collected from the site. It was determined that a one percent permanganate solution added to a soil/groundwater sample resulted in 289 to 337 micrograms per liter (µg/L) of chromium (Cr) VI in water. Results indicated, "While some chromium in the soil may have been oxidized and mobilized, the concentrations of total (average 312 µg/L) is consistent with the amounts added by the LIQUOX."

In Table 2 - Jar Test Results, the average concentration of 312 µg/L appears to correspond to the average concentration of Cr (VI), not total chromium as stated in the results. As such, the results appear to conclude that the concentration of Cr (VI) detected in the water from the samples is a result of the permanganate solution. Since

it appears that the concentration of Cr(VI) is due to the permanganate solution, please discuss the potential impact on the cancer risk associated with the groundwater beneath the site.

If you have any questions, please call me at (714) 484-5395.

Sincerely,

Triss M. Chesney

Triss M. Chesney, P.E.
Remedial Project Manager
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